

# KINGSTON ASH RECOVERY PROJECT

## MONTHLY REPORT

July 2012

**Aerial Image of Kingston Ash Slide (07/26/2012)**



0 1,000 2,000 3,000 4,000  
Feet

Date of imagery: 07/26/2012

Filename: ImageOnly\_20120726\_0011

Tennessee Valley Authority  
Realty, GIS & Land Records

# KINGSTON ASH RECOVERY PROJECT

## MONTHLY REPORT

### July 2012

#### **SAFETY**

- Twenty-six (26) individuals attended site-specific health, safety and environment (HSE) orientations during July 2012 – 2,246 year-to-date. Zero site-specific refresher courses were conducted during the month of July 2012 - 435 year-to-date.
- Sixty-two (62) safety observation reports (SORs) were submitted during July 2012 – 2,958 year-to-date; 2,957 are closed.
- No injuries in the month of July 2012.
- On July 13, 2012, a 480-volt live line feeding power to the Geo-Con batch plant shorted out to ground. No personnel were in the vicinity of the line at the time of the incident. The generator breaker properly kicked off due to the short. The generator was shut off and locked and tagged out to replace the damaged electric line. Corrective actions will include:
  - Performing an extent of conditions of other electrical lines.
  - Getting lines off of the ground where possible.
  - Protecting the lines that cross the walking or working paths.
  - Marking the work areas where buried lines exist.
  - Designating or improving walkways around or over buried lines.
  - Ensuring workers know to stay clear of the lines with tools and equipment.
  - Conducting routine inspections of all electrical lines as required

#### **INFRASTRUCTURE / ASH MANAGEMENT**

- Efforts for site maintenance, dust control, and HAZWOPER control continued.
- Continued recovering cenospheres from the onsite ponds.

#### **ASH SLURRY AND POND TOTAL SUSPENDED SOLIDS (TSS) CONTROL**

- Daily total suspended solids (TSS) sampling and pH monitoring were performed throughout the ash slurry system. The TSS of the sluice trench discharge averaged 44.1 mg/L, the main ash pond effluent TSS averaged 344.2 mg/L and the stilling pond effluent averaged 13.2 mg/L for July 2012.
- The sluice trench effluent and ash pond effluent polymer addition rates were adjusted based on TSS levels during July 2012.
- At the end of July 2012, the plant was operating nine units and no water issues were encountered. High TSS from the Ash Pond was related to construction events and rainfall, but did not create any issues with the Stilling Pond effluent.
- A bathymetric survey of the Stilling Pond was performed on July 23, 2012 and indicates a continued loss of storage due to the high TSS waters from the Ash Pond construction activities. The planned Sluice Trench by-pass installation should substantially reduce this accumulation when completed.

#### **PLANT ASH STORAGE / INTERIM ASH STORAGE AREA (BALLFIELD)**

- Trans Ash placed and compacted dry fly ash during the month. Geosyntec provided quality control and assurance during July 2012.
- The Kingston Fossil Plant (KIF) plant operated from seven to nine units during the month, average of 8.7. The July 2012 ash produced reported by the plant was 29,160 cubic yards.

#### **CENOSPHERE CONTROL ACTIVITIES**

- Daily pond inspections were performed for all ponds. Skimmer pumping from near outlet to cenosphere collection zones was carried out on all three ponds.

- Collection of cenospheres by hydro-vacuum truck was not carried out in July 2012, but vacuuming has been scheduled for early August 2012.

## ROUTINE MONITORING

### Surface Water Sampling

- Continued reduced scope routine surface water monitoring. All monthly stilling pond results received to date have shown compliance with the outfall National Pollutant Discharge Elimination System (NPDES) permit.
- There were rainfall events on July 2, 12, 20, and 31, 2012 that triggered storm flow sampling in Swan Pond embayment.
- Automated monitoring stations (Hydrolabs) are online continuously monitoring pH at three locations in the settling ditch system. The real-time pH results from the settling ditch system are monitored daily and used to make acid-dosing decisions to control the pH of the outflow.
- Continued daily TSS monitoring at the sluice trench, ash pond Agri-Drains and stilling pond.

### Air Sampling

- All air monitoring results for the month of July 2012 from the PM2.5 TVA air samplers were below the current ambient air monitoring plan (AAMP) action levels.

### Data Management

- Provided monthly surface water and air monitoring results to the EPA.

### Biota Sampling

- Virginia Tech completed tree swallow sampling activities week of July 23, 2012 and is wrapping up turtle sampling activities week of July 30, 2012.

### Non-Routine Sampling

- Completed a temperature and dissolved oxygen profile of the North Embayment.
- Continued sample collection and on-site moisture testing in support of dredge cell and ballfield operations.
- Continued sampling support for middle embayment ash removal.

## DREDGE CELL

- Geo-Con continued construction of PWS wall in Segment 7 and completed mitigation wall repair in Segments 1 and 8.
- Ash stacking continued in the central dredge cell and alongside Dike D.
- Griffin continued pumping from well points in PWS Segment 7 and began pumping from 60-foot deep well points.
- CP continued drying materials in the relic area of the southern dredge cell (and in the drying pits next to Dragline Road during wet weather) and hauling from the relic to active ash stacking.
- TVA held meetings to discuss instrumentation reading interpretations and options for jet grouting of defects. Geo-Con then prepared a test plan and completed the field test for jet grouting of defects.

## LATERAL EXPANSION

- A stop work order was issued by Stantec due to rate of movement measured in inclinometers. A counterweight stacking was begun to slow this movement. Once stacking resumes, restrictions will remain in effect that limit stacking to a maximum of 1 foot per day, with guidance to limit stacking in any given area to once per week.
- Small quantities of ash and spoils were placed in the ash pond in preparation of the subgrade prior to stacking.
- Regulators approved the design drawings for the lateral expansion perimeter containment (Segment 2) and the sluice trench outlet piping. Stantec submitted 100% IFC drawings.
- Stantec submitted the 30% design drawings for the ash pond perimeter containment (Segments 3 and 4).

## **RIVER ENGINEERING EVALUATION / COST ANALYSIS (EE/CA) AND BASELINE ECOLOGICAL RISK ASSESSMENT (BERA)**

- Regulators completed review of the draft BERA and the draft EE/CA.
- Jacobs and Arcadis began preparation of the final EE/CA and BERA.
- Jacobs submitted the final BHHRA for regulatory approval.

## **EMBAYMENT RESTORATION AND RECREATION AREA DEVELOPMENT**

- Jacobs submitted the revised 90% design package for the embayment restoration and for the Lakeshore Recreation area.

## **MIDDLE EMBAYMENT**

- Ash removal from the middle embayment was performed during the month and cumulative excavation remained ahead of target.
- Weekly middle embayment status reports were submitted.
- NTC concurrence KIF-12-001 was approved. Work on the second and third concurrence submittals was underway at month's end.
- Flow from Church Slough was connected to the North Embayment flows in the Clean Water Ditch after completion of ash removal and clay berm construction in area of concurrences KIF-12-001 and 002.
- Construction of a clean haul road from the underpass, along the Clean Water Ditch and continuing south along Swan Pond road was on schedule and should be completed in August.

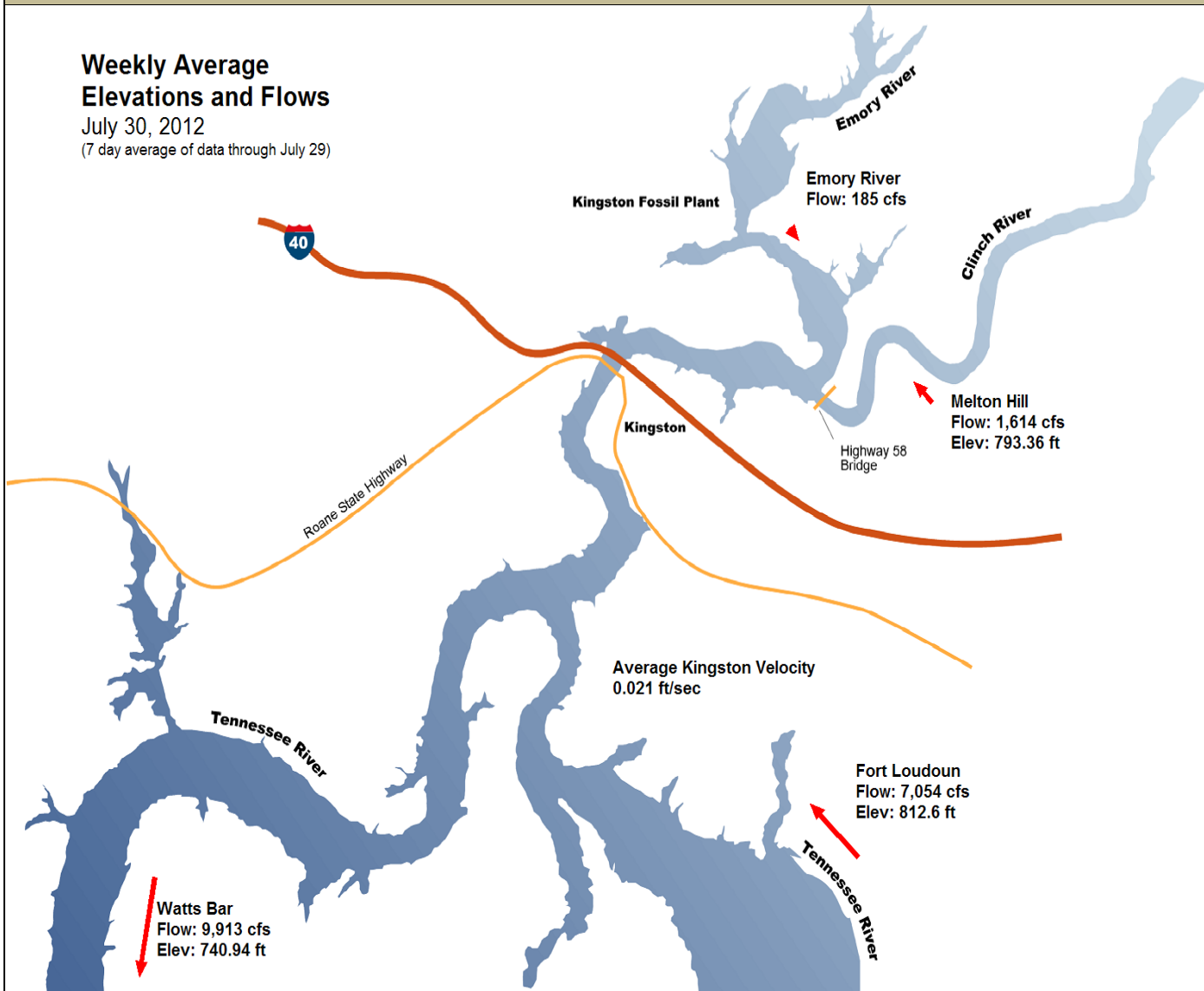
## **COMMUNICATIONS**

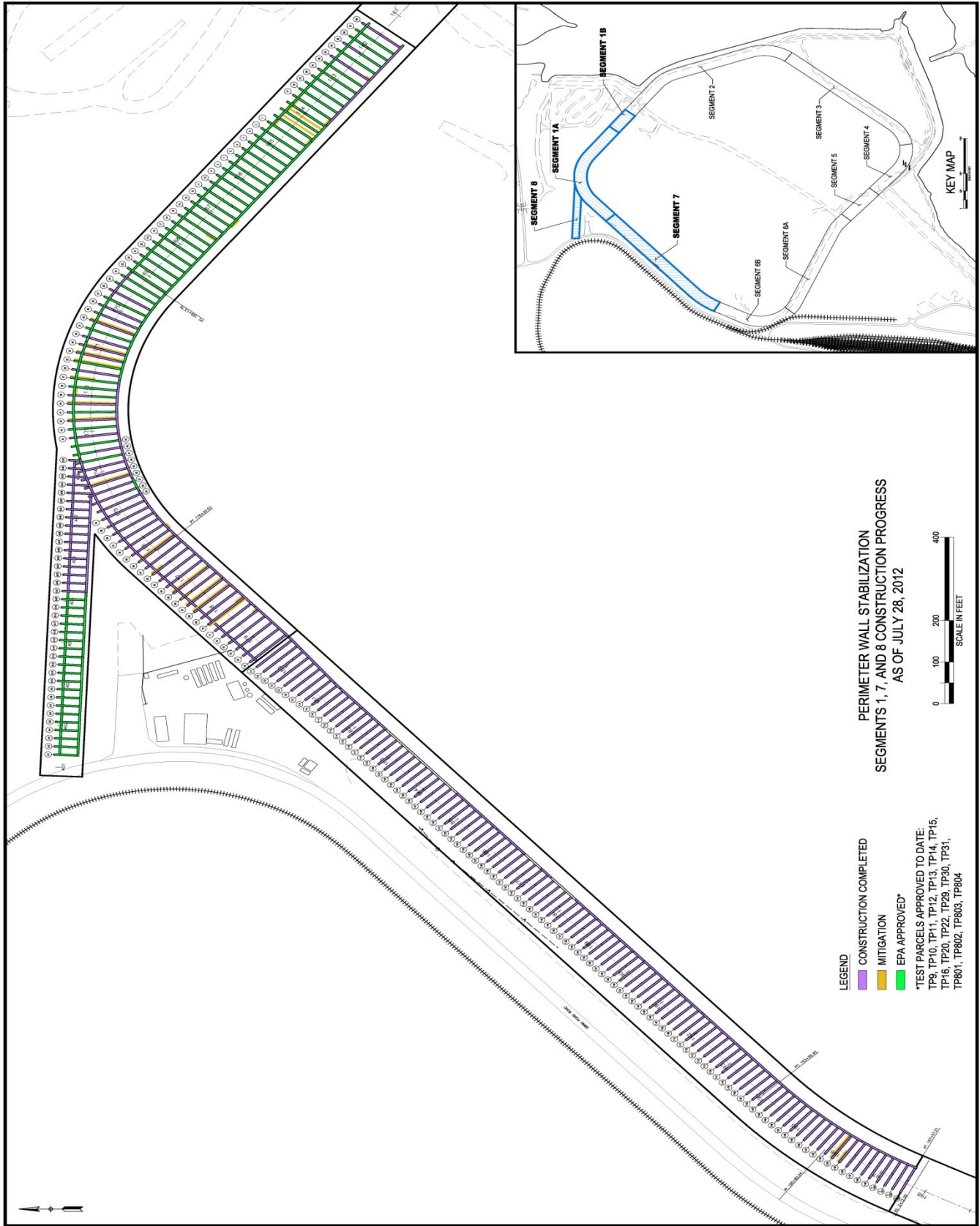
- Added weekly area resident updates to Kingston Ash Recovery website.
- Sent weekly updates to the Community Advisory Group (CAG), public officials and members of the public who have signed up to receive weekly emails.
- Updated administrative record with work plans and relevant documents.
- Continued to respond to calls from residents.
- Updated site bulletin boards.
- Prepared news releases and newspapers ads for release of the River System EE/CA for public comment.
- Prepared for the August 21, 2012 Public Meeting to discuss the River System EE/CA.

## RIVER OPERATIONS

### Weekly Average Elevations and Flows

July 30, 2012  
(7 day average of data through July 29)



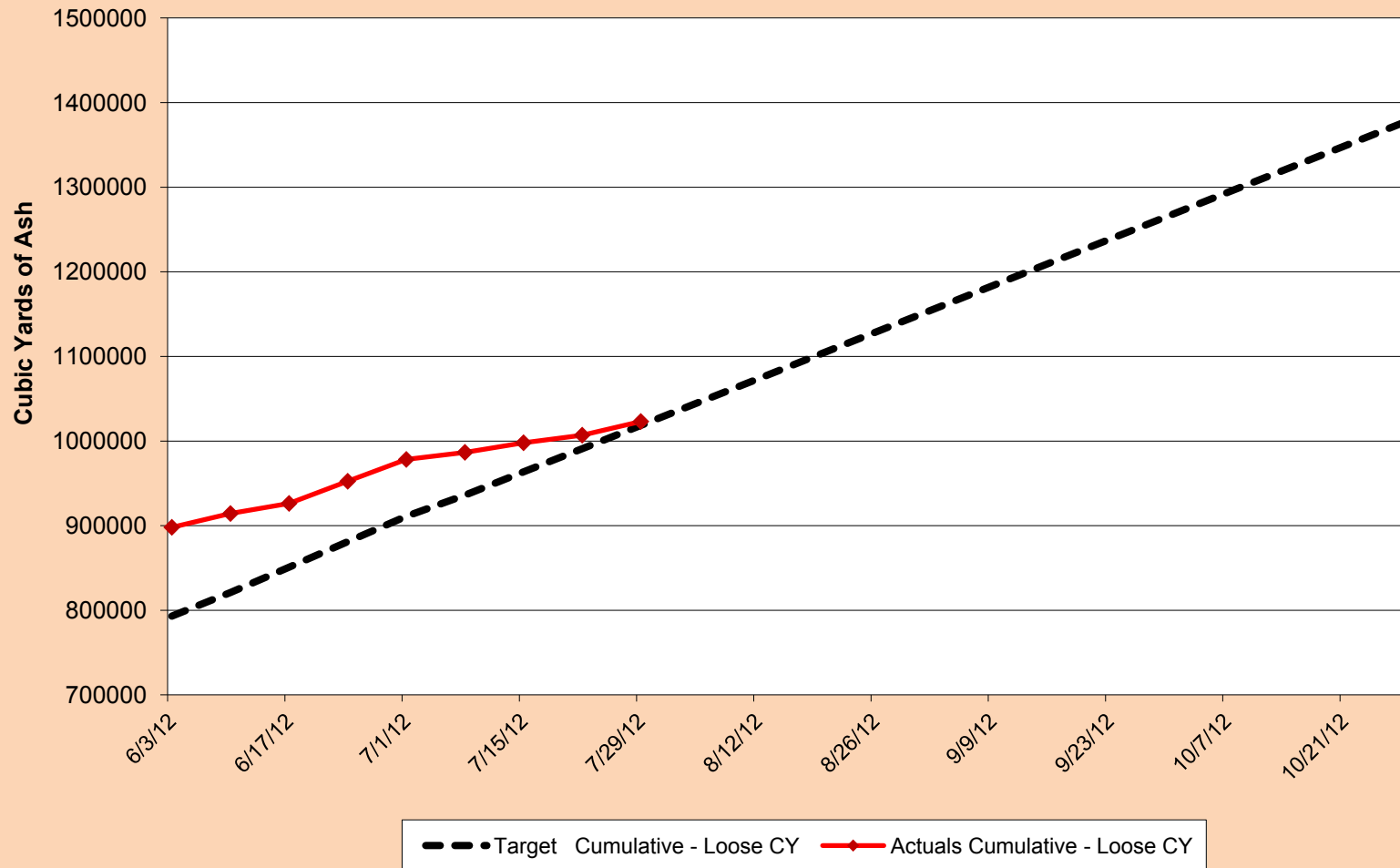


Kingston Ash Recovery Project			July 2012		Field Report
Safety			Monthly Total	FY – Cumulative Total	
Near Misses			0	0	
First Aid Incidents			0	13	
Recordable Incidents			0	1	
Recordable Lost Time Incidents			0	0	
Environmental	Matrix	Samples	Analyses	Results	
Organization - TVA	Surface / Utility Water	5,684	48,158	261,007	
Organization - TVA	Groundwater (spring & well)	255	2,653	15,518	
Organization - TVA	Ash	756	1,330	9,967	
Organization - TVA	Soil / Sediment	1,190	2,299	17,133	
Organization - TVA	Biota	4,795	10,189	122,038	

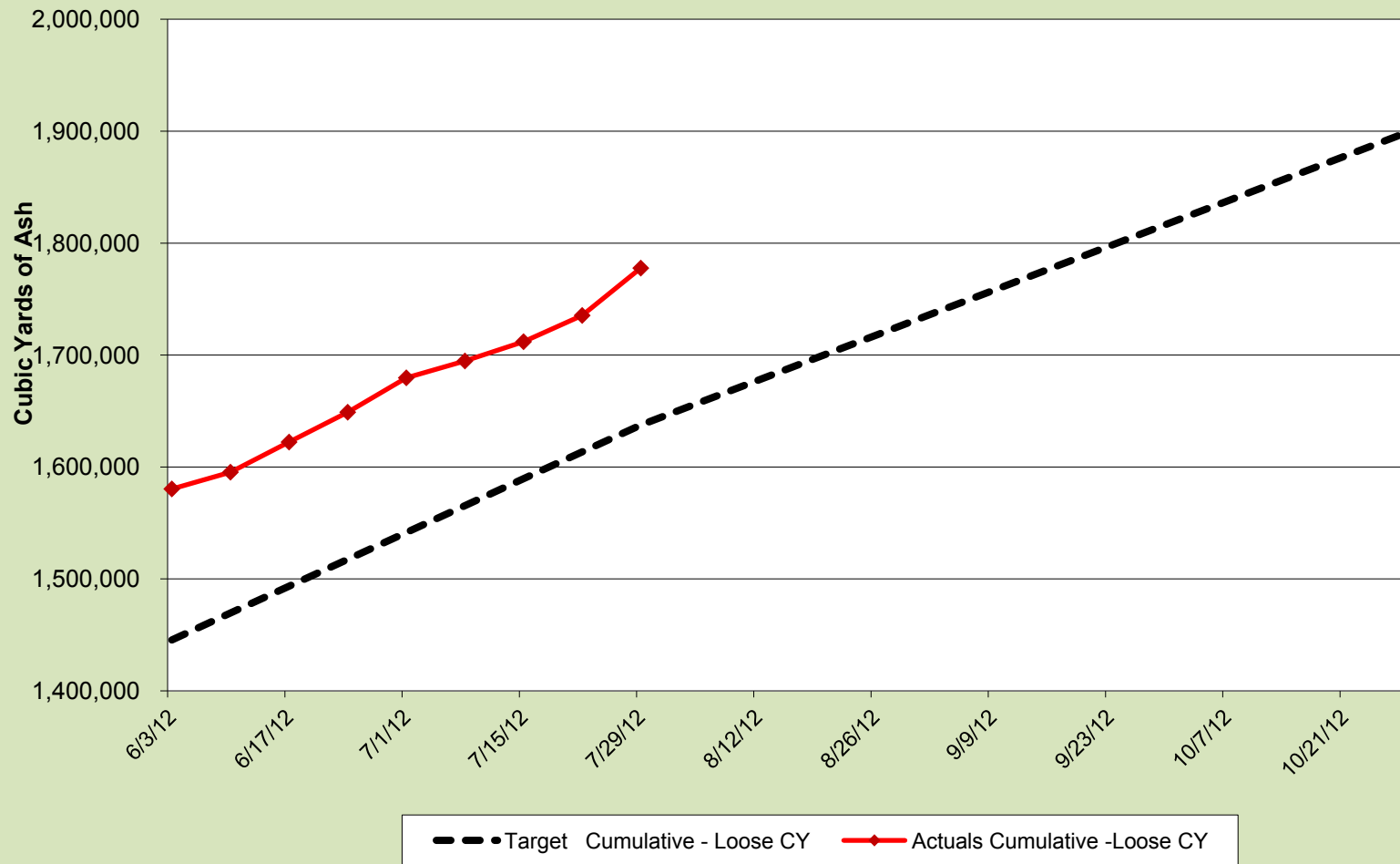
Work Description	Period Work Performed (CYIP)	PTD Work Performed (CYIP)
<b>Ash Removal / Excavation</b>		
Total Removed from Middle Embayment	35,405	740,066
Total Removed from North Embayment	-	1,010,322
Total Removed from Settling Basins / Dike 2	1,123	25,785
<b>Excavated Total</b>	<b>36,528</b>	<b>1,776,173</b>
Work Description	Period Work Performed (CCY)	PTD Work Performed (CCY)
<b>Placement</b>		
Total Placed in Dredge Cell	78,055	1,149,363
Total Placed in Lateral Expansion	653	547,733
Total Placed in Ash Pond	6,241	326,273
<b>Placed Total</b>	<b>89,949</b>	<b>2,023,369</b>
Work Description	Period Work Performed (CCY)	PTD Work Performed (CCY)
<b>Storage Handling</b>		
Total Removed from Lateral Expansion	-	50,771
Total Removed from Dredge Cell	53,473	506,676
Total Removed from Ballfield	1,965	433,830
<b>Removed from Storage Total</b>	<b>55,438</b>	<b>991,277</b>
<b>Net Removed to(from) Ballfield Storage</b>	<b>2,574</b>	<b>(138,096)</b>

For period ending July 31, 2012.

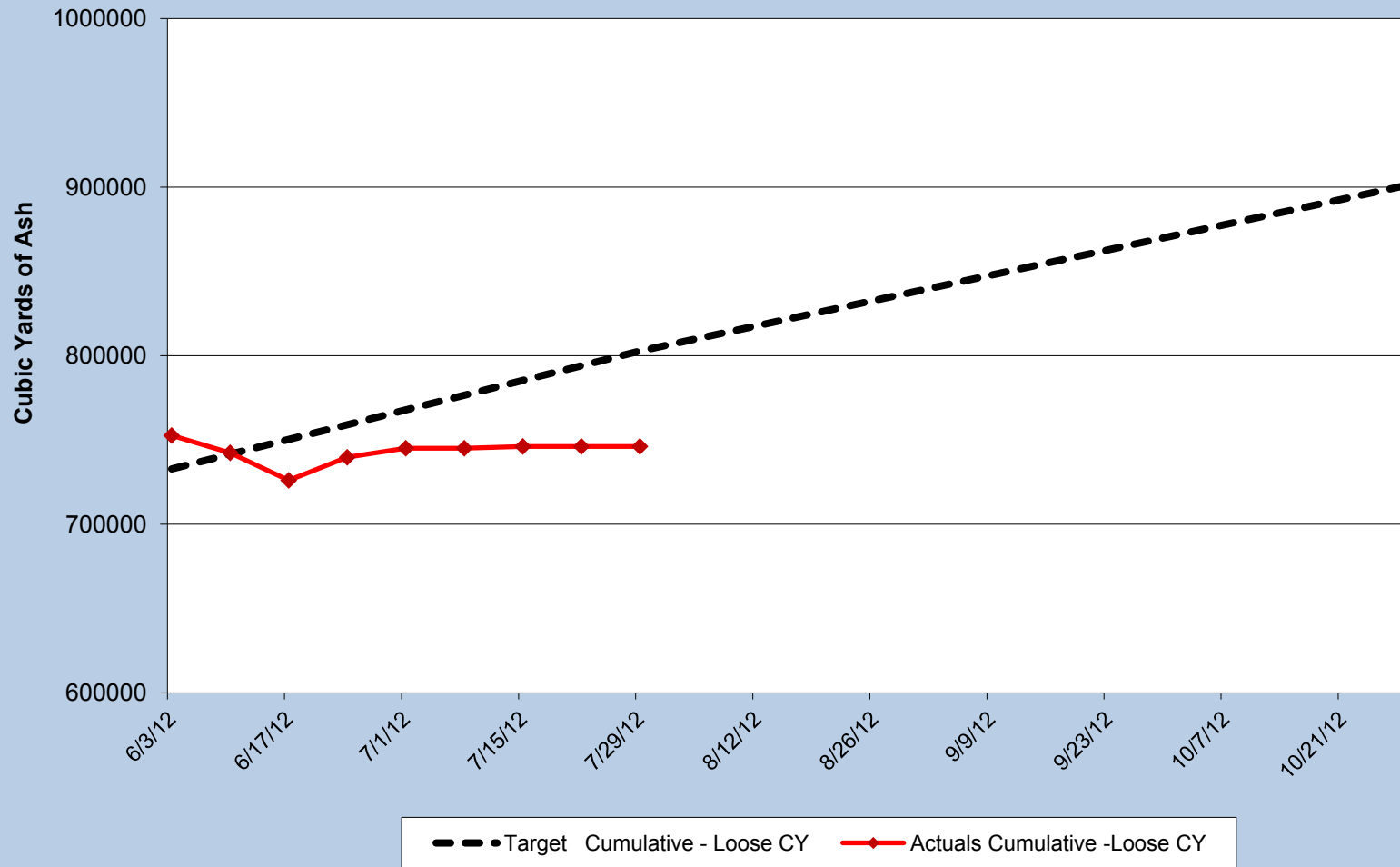
### Ash Excavation from Middle Embayment Weekly as of July 29, 2012



### Ash Stacking in Dredge Cell Weekly as of July 29, 2012



### Ash Stacking in Lateral Expansion Weekly as of July 29, 2012



**Perimeter Wall Stabilization Segment 1A, 1B,8 & 7  
Weekly as of July 29, 2012**

